



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

646.4001

Job Sheet 188175



Part No: 646.4001

Job Qty: 1 ea

Part Name: AS350 Cable Cutter System



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/4/19

Job Tracking No:

Due Date: 1/29/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV C1 IPP REV:A 12.10.23 NEW ISSUE DD VERF:JLM IPP REV:B 15.01.08 AS PER DWG REV.B
DD VERF:JLM IPP REV:C 16.01.07 AS PER DWG REV.C DD VERF:JLM

Ship Via:

007410

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	1/29/19	1/29/19	0.00	0.00	Start Up Stores/Pkg-1		JAN 10 2019 6
110	Packaging	1 pcs	1/29/19	1/29/19	0.00	0.00	Packaging1-1		DAS 2-89
120	QC	1 pcs	1/29/19	1/29/19	0.00	0.00	QC4		DAS 46 JAN 30 2019
130	Packaging	1 pcs	1/29/19	1/29/19	0.00	0.00	Packaging3-1		DAS 2-89 JAN 30 2019
135	DC	1 pcs	1/29/19	1/29/19	0.00	0.00	DC		DAS 21 9-89 JAN 30 2019
140	QC21-FG	1 Ea	1/29/19	1/29/19	0.00	0.00	QC21		DAS 21 9-89 JAN 30 2019

Part Op 130 - Identify and pack for shipping as per PPP 646.4001 Location: _____
Descriptions: 135 - Photocopy bluefile & type labels per PPP 646.4001

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
600.0129	VHB Tape	8 ft (8 ea)	90-Start up Operation	50900
600.0990	Magnabond 6398 Part A Size 112 ml	1 Ea (1 ea)	90-Start up Operation	5137084
600.0991	Magnabond 6398 Part B Size 112 ml	1 Ea (1 ea)	90-Start up Operation	5137081
600.1012	Sealant PR1425B2 (#654 sem)	1 pcs (1 ea)	90-Start up Operation	5122215
600.1013	021200-3M Tape Primer 94 Primer 24216	5 Ea (5 ea)	90-Start up Operation	5136734
646.2910	Deflector	1 pcs (1 ea)	90-Start up Operation	5093821
646.3001	Lower Cable Cutter Assembly	1 Ea (1 ea)	90-Start up Operation	5127095
646.3110	Channel	1 Ea (1 ea)	90-Start up Operation	5136445
646.3210	Support	1 Ea (1 ea)	90-Start up Operation	5091793
646.3301	Upper Cutter Assembly	1 Ea (1 ea)	90-Start up Operation	5146373
646.3510	Strut	1 Ea (1 ea)	90-Start up Operation	5127140
646.3511	Strut	1 Ea (1 ea)	90-Start up Operation	5081635
646.3610	Filler	1 pcs (1 ea)	90-Start up Operation	5012241
646.3710	Doubler	1 pcs (1 ea)	90-Start up Operation	5046966
646.3711	Clip	1 pcs (1 ea)	90-Start up Operation	5063766
646.3712	Clip	1 pcs (1 ea)	90-Start up Operation	5038897
646.3713	Gusset	1 Ea (1 ea)	90-Start up Operation	5124418
646.3714	Gusset	1 pcs (1 ea)	90-Start up Operation	5030379
646.3715	Strut Doubler	2 Ea (2 ea)	90-Start up Operation	5139095
646.3716	Gauge Bracket	1 pcs (1 ea)	90-Start up Operation	5063780
646.3717	Doubler	1 pcs (1 ea)	90-Start up Operation	5082374
646.3718	Custom Washer	2 pcs (2 ea)	90-Start up Operation	5088803

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation Dart Aerospace Ltd. 1270 Aberdeen Street Hawkebury, ON K0A 1K7 CANADA TEL: 1-800-832-5200 Email: sales@dartaero.com www.dartaerospace.com DART AEROSPACE Order No: S149058 Lot: 646.4J01 No: 188175 Lot No/Batch: S149058 Date: 06/28/2019 Actions: FAA STC SR02180LA 14/DA/07/16 STC SH09 - 10 Issue 1, BRA7			Disposition 		
			Completed By 		
			Lead hand / Supervisor 		
			QC / QA Coordinator 		
Process Improvement ☐ Human Factors ☐			CATEGORY ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread		
Other/Details: _____					

646.3719	Doubler	2 pcs (2 ea)	90-Start up Operation	502354
646.3810	Bracket	2 pcs (2 ea)	90-Start up Operation	5131074
646.3811	Radius Block	1 pcs (1 ea)	90-Start up Operation	5040843
646.3812	Gusset Bracket	2 Ea (2 ea)	90-Start up Operation	5131076
646.3813	AS350 Strut Bracket	1 pcs (1 ea)	90-Start up Operation	5131319
646.3910	Shim	4 pcs (4 ea)	90-Start up Operation	5129146
646.3911	Shim	1 pcs (1 ea)	90-Start up Operation	5041250
646.3912	Shim	4 pcs (4 ea)	90-Start up Operation	502869
646.3913	Shim	1 pcs (1 ea)	90-Start up Operation	5041498
646.9410	Shim	1 pcs (1 ea)	90-Start up Operation	5056998
647.0112	Strut Bracket	2 pcs (2 ea)	90-Start up Operation	5133711
647.7703	Strut Assembly	2 Ea (2 ea)	90-Start up Operation	5143559
650.9201	Eyelet Bracket Assembly	2 Ea (2 ea)	90-Start up Operation	5131245
AN3-11A	Bolt	10 Ea (10 ea)	90-Start up Operation	5129968
AN3-12A	Bolt	2 Ea (2 ea)	90-Start up Operation	5095479
AN3-13A	Bolt	1 Ea (1 ea)	90-Start up Operation	5098032
AN3-3A	Bolt	4 Ea (4 ea)	90-Start up Operation	5131193
AN3-4A	Bolt	10 Ea (10 ea)	90-Start up Operation	5112901
AN3-5A	Bolt	2 Ea (2 ea)	90-Start up Operation	5095450
AN3-6A	Bolt	2 Ea (2 ea)	90-Start up Operation	5103950
AN316C4R	Nut, Jam	2 Ea (2 ea)	90-Start up Operation	5133132
AN44-5A	Eyebolt	2 Ea (2 ea)	90-Start up Operation	5127332X1 5131212X1
AN4C7A	Bolt	2 Ea (2 ea)	90-Start up Operation	5095478
AN665-34R	Clevis	2 Ea (2 ea)	90-Start up Operation	5142067
CCR264SS3-02	Cherry Rivet	36 Ea (36 ea)	90-Start up Operation	5133189
CR3213-5-3	Cherry Rivet	14 Ea (14 ea)	90-Start up Operation	508545X1 5130134X 13
MS20426AD5-7	Rivet	2 Ea (2 ea)	90-Start up Operation	5133848
MS20470AD5-5.5	Rivet	8 Ea (8 ea)	90-Start up Operation	511134063
MS20470AD5-6	Rivet	8 Ea (8 ea)	90-Start up Operation	5048897
MS20470AD5-7	Rivet	3 Ea (3 ea)	90-Start up Operation	5123425
MS21042L08	Nut	2 Ea (2 ea)	90-Start up Operation	5100409X1 5130140X1
MS21042L3	Nut	63 Ea (63 ea)	90-Start up Operation	5132364
MS21042L4	Nut	2 Ea (2 ea)	90-Start up Operation	5130346
MS21047-3	Nut Plate	18 Ea (18 ea)	90-Start up Operation	5084882X8 5103943X 10
MS24693-C278	Screw	5 Ea (5 ea)	90-Start up Operation	5065341
MS24694-S51	Screw	5 Ea (5 ea)	90-Start up Operation	5123459
MS24694-S54	Screw	2 Ea (2 ea)	90-Start up Operation	5118346
MS24694-S55	Screw	3 Ea (3 ea)	90-Start up Operation	5099526
MS27039-08-13	Screw	2 Ea (2 ea)	90-Start up Operation	5123933
MS27039-1-10	Screw	2 Ea (2 ea)	90-Start up Operation	5124963
MS27039-1-12	Screw	6 Ea (6 ea)	90-Start up Operation	5124661
MS27039-1-16	Screw	24 Ea (24 ea)	90-Start up Operation	5104364
MS27039-1-19	Screw	22 Ea (22 ea)	90-Start up Operation	5033205
MS27039-1-20	Screw	2 Ea (2 ea)	90-Start up Operation	5094554
MS27039-1-21	Screw	4 Ea (4 ea)	90-Start up Operation	5104011
NAS1149F0332P	Washer	144 Ea (144 ea)	90-Start up Operation	5133206
NAS1149F0363P	Washer	2 Ea (2 ea)	90-Start up Operation	505330
NAS1149F0432P	Washer	4 Ea (4 ea)	90-Start up Operation	5131202
NAS1149FN832P	Washer	4 Ea (4 ea)	90-Start up Operation	5136368

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	600.0129	8	112	0
	600.0990	1	23	0
	600.0991	1	23	0
	600.1012	1	24	0
	600.1013	5	111	0
	646.2910	1	10	0
	646.3001	1	6	0
	646.3110	1	8	0
	646.3210	1	12	0
	646.3301	1	0	0
	646.3510	1	27	0

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

646.3511	1	27	0
646.3610	1	23	0
646.3710	1	36	0
646.3711	1	23	0
646.3712	1	26	0
646.3713	1	14	0
646.3714	1	8	0
646.3715	2	29	0
646.3716	1	22	0
646.3717	1	12	0
646.3718	2	12	0
646.3719	2	8	0
646.3810	2	16	0
646.3811	1	12	0
646.3812	2	10	0
646.3813	1	19	0
646.3910	4	15	0
646.3911	1	27	0
646.3912	4	49	0
646.3913	1	22	0
646.9410	1	84	0
647.0112	2	62	0
647.7703	2	2	0
650.9201	2	23	0
AN3-11A	10	135	0
AN3-12A	2	158	0
AN3-13A	1	76	0
AN3-3A	4	322	0
AN3-4A	10	185	0
AN3-5A	2	168	0
AN3-6A	2	146	0
AN316C4R	2	56	0
AN44-5A	2	47	0
AN4C7A	2	77	0
AN665-34R	2	10	0
CCR264SS3-02	36	581	0
CR3213-5-3	14	243	0
MS20426AD5-7	2	949	0
MS20470AD5-5.5	8	133	0
MS20470AD5-6	8	910	0
MS20470AD5-7	3	103	0
MS21042L08	2	1,464	0
MS21042L3	63	2,545	0
MS21042L4	2	1,857	0
MS21047-3	18	179	0
MS24693-C278	5	71	0
MS24694-S51	5	257	0
MS24694-S54	2	358	0
MS24694-S55	3	56	0
MS27039-08-13	2	497	0
MS27039-1-10	2	167	0
MS27039-1-12	6	160	0
MS27039-1-16	24	424	0
MS27039-1-19	22	265	0
MS27039-1-20	2	114	0
MS27039-1-21	4	54	0
NAS1149F0332P	144	2,556	0
NAS1149F0363P	2	480	0
NAS1149F0432P	4	898	0
NAS1149FN832P	4	2,016	0

Part Specifications

Specifications could not be found.

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

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NOTES:

1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2 INSTALL F/N 14 WITH F/N 52 & 53.

3 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.

4 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5 REUSE FASTENERS FROM F/N 1.

6 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8 INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3975	SCREW	
1	1	1	77	646.9410	SHIM	
	4	4	76	601.2764	WASHER	
	2	2	75	601.2973	LOCKNUT	
	2	2	74	601.2988	SCREW	
	2	2	73	601.2943	LOCKNUT	
	2	2	72	601.3128	NUT	
	2	2	71	601.3209	LOCKNUT	
	4	4	70	601.2638	WASHER	
	2	2	69	601.2669	BOLT	
	2	2	68	601.3119	CLEVIS	
	2	2	67	601.3121	EYE BOLT	
	2	2	66	650.9201	EYE BRACKET ASSY	
REF	REF	REF	65	647.5701	GPS MOUNT KIT	
		2	64	601.3151	WASHER	
		2	63	601.2911	SCREW	
	24	24	62	601.2637	SCREW	
2	2	2	61	601.2763	BOLT	
	1	1	60	646.3913	SHIM	
	4	4	59	646.3912	SHIM	
	1	1	58	646.3911	SHIM	
	4	4	57	646.3910	SHIM	
	5	5	56	600.1013	PRIMER	
	8 FT	8 FT	55	600.0129	VHB TAPE	
	1	1	54	600.1012	SEALANT	
	1	1	53	600.0991	MAGNOBOND 6396 PART B	
	1	1	52	600.0990	MAGNOBOND 6396 PART A	
6	10	10	51	601.2826	BOLT	
		2	50	646.3814	WIPER BRACKET	
		2	49	601.2910	SCREW	
	2	2	48	601.1365	SCREW	
	2	2	47	646.3719	DOUBLER	
	2	2	46	646.3718	CUSTOM WASHER	
	1	1	45	646.3717	DOUBLER	
	22	2	44	601.1948	SCREW	
	2	2	43	601.1952	SCREW	
	4	4	42	601.1956	SCREW	

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02199, 02181, 02216 & 02765	03/06/2010	P. BRAVO
B	INCORPORATED ECN 02046, 02079 & 04731	11/04/2014	P. BRAVO
C	INCORPORATED ECN 00058	09/09/2014	P. BRAVO

		2	2	41	601.2829	SCREW	MS24794554
		2	2	40	601.2831	RIVET	MS20426A05-7
		1	1	39	646.3716	GAUGE BRACKET	
		6	6	38	601.1953	SCREW	MS27039-1-12
		2	2	37	646.3715	STRUT DOUBLER	
	2	2	2	36	601.2824	BOLT	AN3-5A
12	36		36	35	601.2277	RIVET	CCW24453-02
6	18		18	34	600.0795	NUTPLATE	MS21047-3
3	3		3	33	601.2565	RIVET	MS20470A05-7
1	1		1	32	646.3813	STRUT BRACKET	
4	4		4	31	601.2822	BOLT	AN3-3A
2	2		2	30	646.3812	GUSSET BRACKET	
8	8		8	29	601.2564	RIVET	MS20470A05-6
1	1		1	28	646.3714	GUSSET	
	1	1	1	27	646.3610	FILLER	
	3	3	3	26	601.2830	SCREW	MS24694555
	2	2	2	25	601.2825	BOLT	AN3-5A
	1	1	1	24	646.3811	RADIUS BLOCK	
	1	1	1	23	646.3712	CLIP	
	1	1	1	22	646.3711	CLIP	
8	8		8	21	601.2832	RIVET	MS20470A05-6.5
14	14		14	20	601.2020	RIVET	CP3215-5-3
4	6	4	6	19	601.2823	BOLT	AN3-4A
	1	1	1	18	601.2827	BOLT	AN3-13A
	5	5	5	17	601.2912	SCREW	MS24694551
1	1		1	16	646.3713	GUSSET	
1	1		1	15	646.3210	SUPPORT	
	1	1	1	14	646.3710	DOUBLER	
	1	1	1	13	646.3110	CHANNEL	
14	10	8	53	6	601.1624	LOCKNUT	MS21042L3
16	32	18	120	16	601.1607	WASHER	NAS1149F0363P
			1	10	646.3410	LH WIPER DEFLECTOR	
			1	9	646.3411	RH WIPER DEFLECTOR	
		2	2	8	647.7703	STRUT ASSY	
		2	2	7	647.0112	STRUT BRACKET	
	1	1	1	6	646.3511	STRUT	
	1	1	1	5	646.3510	STRUT	
2	2		2	4	646.3810	BRACKET	
		1	1	3	646.2910	DEFLECTOR	
	1	1	1	2	646.3001	LOWER CUTTER ASSY	
		1	1	1	646.3301	UPPER CUTTER ASSY	
X					646.4006	LOWER CUTTER FIRED PROVISIONS KIT	
	X				646.4005	LOWER CUTTER REMOVABLE PROVISIONS KIT	
		X			646.4004	FIXED PROVISIONS KIT	
			X		646.4003	CABLE CUTTERS KIT WITHOUT FIXED PROVISIONS	
				X	646.4002	AS350 WIPER DEFLECTOR KIT	
				X	646.4001	AS350 CABLE CUTTERS KIT	

QTY	NEXT ASSY (S)	ORIGINAL DATE IMO DATA: 08-27-08 DRAWN BY S. HUFF P. BRAVO	DATE 08-27-08 P. BRAVO	APPROVAL 08-27-08 P. BRAVO
PARTS LIST		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300 DBA DART AEROSPACE		
AS350 CABLE CUTTERS KIT		DIMENSIONS OTHER THAN SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.005 ANGLES ±.5°		
SET	GAGE CODE	DWG. NO.	REV.	
B	07M26	646.4000	C	
SCALE: NONE		SHEET 1 OF 5		